University of Alberta

Continuing Professional Development:

Certified Management Accountants in Education

by

Claudia J. Finlay-Parker

A thesis submitted to the Faculty of Graduate Studies and Research in partial fulfillment of the requirements for the degree of Master of Education

in

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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research for acceptance, a thesis entitled Continuing Professional Development: Management Accountants in Education submitted by Claudia J. Finlay-Parker in partial fulfillment of the requirements for the degree of Master of Education in Adult and Higher Education .

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Dr. Sandra Ubelacker

Date: Sept. 23/96

Dedication

To my husband, Phillip, for his love and encouragement and my sons David, Stephen and Andrew, for their patience and understanding throughout this study.

Abstract

This research was undertaken to determine the professional development needs of CMA post-secondary educators and to address how these needs may be met. Specifically the study addressed skills needed for update, competency and enhancing performance. The research was intended to discover desired modes of delivery, funding, and programming.

The researcher reviewed the literature on professional development, continuing business education, Certified Management Accountants, the adult learner, and needs assessment. This investigation provided several points of view on professional development including arguments for and against mandatory continuing professional development. It also provided some insight into the methods of collecting data for the study.

This was a needs assessment study. A survey questionnaire was developed and used for data collection. Demographic information was requested to facilitate analysis and presentation of results. Respondents rated 45 topics twice on a Likert-type scale; first to indicate the degree of importance of the topics and second to indicate the degree of difficulty in accessing the topics for professional development. The topics were categorized as possible Update, Competence and Performance needs.

Needs were analyzed using descriptive statistics and the Quadrant Assessment Model. Those topics which were more important and more difficult to access were placed into quadrant one of the model. These topics represented the discrepancy gap between what was needed for professional development and was not readily available.

It was discovered that the first four needs of CMA post-secondary educators were courses in instructional methods, ethics for instructors, communications technology and adult educator skills. These were all update skills. On rating of importance of topics, update skills seemed to be more important. On rating difficulty in accessing professional development, some competency skills relating to the business and industry climate were less accessible to CMA post-secondary educators. Respondents selected in-house workshops as the most desired method of delivery. They wanted professional development scheduled in the summer months and preferred courses scheduled on week-days or evenings. There was concern that professional development would not interfere with family life and commitments.

The findings were consistent with the literature on adult learning and professional development, especially on the fact that adults are self-motivated to learn and will choose courses according to their needs.

Acknowledgement

Several persons have contributed to this study. I would like to thank my supervisor, Dr. Ken Ward, for his assistance, guidance, and moral support throughout this research. I am grateful for the suggestions given by committee members Dr. Don Richards and Dr. S. Ubelacker. To Dr. Paula Brook and Dr. Dave Collett thanks for your comments which helped to improve the survey questionnaire. Mrs. Chris Prokop, your participation with data analysis was much appreciated.

I wish to express my gratitude to all the CMA post-secondary educators who were generous enough to spare the time to complete and return the questionnaire. I am especially thankful for the comments and welcomed advice of those who were involved with the pilot study.

There were others involved behind the scene without whom this study would not be possible. Included in this group are my colleagues. I am forever grateful to my parents Mr. Claude and Mrs. Nita Finlay and other members of my family who always encourage me to continue learning.

Above all I must give thanks to God for giving me health, strength, means, and the opportunity to complete this study.

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Chapter I

Overview of the Problem

Introduction

Many varied courses are offered to Certified Management Accountants (CMAs) in Alberta as part of the Society of Management Accountants' planned professional development course offerings to its members and intended to help members in continuing professional education. Some of these courses are in the area of new developments and techniques in management accounting and related areas for improving professional skills. Others are for personal development and may be in general areas of interest, for example, recreational, political, or national interest. These professional development courses are costly and may be offered in the central locations of Edmonton or Calgary.

The professional development courses offered in the past were organized by the Society of Management Accountants of Alberta and sometimes in conjunction with the Institute of Chartered Accountants of Alberta. These courses were accepted by members of the profession on a voluntary basis according to the needs of individuals. The courses were advertised in the CMA magazines or by a special professional development bulletin sent to members. Once a year the Society sends a

survey to its members asking what the individuals did as part of their continuing education for the past year. The questionnaires also asked what types of professional development were undertaken by members during the preceding year and the medium used. In the "1995 Member Survey," nine percent of the membership responded. Of Alberta CMAs, 99% of the respondents ranked continuing professional education as very important and 97% agreed that the Chapter should continue to sponsor Seminars (Management Accounter Winter, 1995, p. 1).

CMAs work in many different environments, for example, 31% work in the commercial and service Industry, 24% in resources and 17% in government. They work "across all levels of an organization, depending on their personal qualification, experience and career choices " (SMA of Alberta: Guide to the Profession, 1995-96 p. 3). Included in the service industry group are CMAs who are educators.

Purpose

The purpose of this study was to explore the area of professional development to access the needs of CMAs who are educators at post-secondary institutions. As a group, the needs of post-secondary educators are different from CMAs in other positions. The study also addressed alternative methods of delivering professional development according to the preferences of this group. The research brought to light how this particular group of professionals prefers to learn, under what conditions, the

best time to offer courses and the type of courses most desired. It is expected that this research will help post-secondary institutions to improve planning of content and delivery of professional development courses for CMAs who are educators. The findings will have implications for other professionals who are educators.

Eraut (1994) has stated that "Behind the numerous policy issues, which have enlivened the debate about the appropriate form and structure for professional education, lies a remarkable ignorance about professional learning" (P. 40). This research has addressed this problem.

Problem statement and Research Questions

To achieve the purpose of this study the following question was asked.

WHAT ARE THE PERCEIVED PROFESSIONAL DEVELOPMENT NEEDS OF CERTIFIED MANAGEMENT ACCOUNTANTS WHO ARE POST-SECONDARY EDUCATORS AND HOW MAY THESE NEEDS BE MET?

More specifically the following questions have been answered:

1. What skills and attitudes are necessary for professional development of CMA members who are post-secondary educators?

2. What medium may be used to deliver professional development for CMA post-secondary educators?
3. How can participation in professional development courses be improved?
4. How should professional development courses be funded?
5. What are the needs of CMA post-secondary educators who want to keep up to date with new information related to management practices and technology and professional competencies identified by the Society of Management Accountants?
6. What are the needs of CMA post-secondary educators with respect to teaching and learning methods?
7. What are the performance enhancing needs of CMA post-secondary educators?

Statement of Significance

As stated in Langenbach, (1988)

> The conventional concept of continuing education according to Houle, was a relatively undifferentiated series of attempts to maintain or modernize the professional's knowledge and skill that occurred after induction into the profession. The modern conception of continuing professional education reflects anticipated events in the career span of the professional (Langenbach 1988, P. 108).

Professionals who keep up to date with current methods and techniques as well as current general knowledge of developing issues in the field can help enhance the

creditability of the profession and the public's reliance on the professionals. It is therefore necessary to constantly evaluate the needs of the members who are educators considering the changing needs and society's expectations of the professionals who are post-secondary educators.

The study identified the professional development needs of the CMAs who are post-secondary educators and addressed how these needs may be met. The study also determined how members of this group of professionals prefer to learn.

Knowles (1980) speaks of innovative organizations as having a flexible structure and its management as placing emphasis on personal development (p. 67-68). Knowles also speaks of a democratic philosophy in adult education and said, "... A democratic philosophy means that the learning activities will be based on the real needs and interest of participants; that the policies will be determined by a group that is representative of all participants; and that there will be a maximum of participation ..." (Knowles, 1980 p. 68). The value of the findings from this study depends directly on the level of participation by CMAs who are post-secondary educators.

The findings could be used by planners at post secondary institutions for planning future professional development regarding content, timing and method of delivery according to the learning preferences of these CMA educators. The findings may be transferable to members of other professions who are educators and may be applicable to other practising CMA members.

Delimitations

The study was delimited to CMA educators at the post secondary level. They prepare students for and teach in the CMA pre-professional program . These professionals all reside in Edmonton, Alberta. The result of the study will therefore have implications for this group of CMA members.

Limitations

The use of a questionnaire could only give the perceived needs of the CMA members who are post-secondary educators. The researcher depended on opinions given by these CMA post-secondary educators who are presumed to have carefully answered the questionnaire.

Definition of Terms

An explanation of some of the terms used in this thesis is given below.

1. CERTIFIED MANAGEMENT ACCOUNTANTS (CMAs): These are adults who have successfully studied a specified body of knowledge after going through the school system and are members of the Society of Management Accountants.

2.EDUCATOR: One who or that which educates, trains or instructs. (Oxford English Dictionary) For this study a CMA who educates at a post-secondary

institution.

3. NEEDS: "Need as a noun refers to the gap or discrepancy between a present state (what is) and a desired end state, future state, or condition (what should be)". ....."Need as a verb points to what is required or desired to fill the discrepancy - solutions, means to an end" (Witkin & Altschuld 1995, p. 9).

4. NEEDS ASSESSMENT: "a systematic set of procedures undertaken for the purpose of setting priorities and making decisions about program and organizational improvement and allocation of resources. The priorities are based on identified needs" (Witkin & Altschuld 1995, p. 4).

Assumptions

Some assumptions were made to communicate background meaning of the study. These are given below.

1. Knowledge requirements are changing as the business climate, businesses, taxes and related laws and management techniques are changing and improving.
2. Educators must keep up to date to facilitate learning.
3. CMAs who are educators are informed about their professional development needs and are willing to participate honestly in identifying their needs.

Organization of the Thesis

This thesis consists of five chapters. Chapter One has provided an introduction and background of the study as well as a rationale for the study. In Chapter Two there is a review of the literature on the Society of Management Accountants, professional development, and needs assessment and the quadrant assessment model. In Chapter Three the methodology is described and the reason it was chosen. The data are analyzed and findings are given in Chapter Four. The study was concluded with Chapter Five which gives a summary of the study and the conclusions. It also provides some recommendations and implications for planners of professional development for CMAs who are post-secondary educators.

Chapter II

Review of the Literature

Introduction

To give some background information regarding the research topic of improving professional development for management accountants who are post-secondary educators, it was necessary to do a literature review on the subject. The review described the Certified Management Accountant (CMA) and the goals and objectives of the Society of Management Accountants of Alberta, professional development, the special needs of the adult learner and the learner's environment in which continuing professional education takes place, and how these needs are assessed.

The Society of Management Accountants

The Society of Management Accountants of Canada was incorporated under the Dominion Companies Act in 1920.

> The effort to establish the Society as a legal entity was provided by Robert J. Dilworth, CA, a partner of Clarkson, Gordon, Dilworth & Nash, later known as Clarkson Gordon & Co. In his endeavour he was aided by representatives of all the provincial institutes of Chartered Accountants which had been invited to appoint one member each to sponsor the organization and the incorporation of the Society (Allan 1982 p. 7).

One of its objectives was "to ensure that the education and development program available to those who must serve the management accounting function in the future will always be relevant to the needs of their roles" (Accountants' Handbook 1970, Statement of Objectives p. 1). The national body is responsible for setting the standards of competence for its members as a basis for granting a professional designation to those who meet those standards.

The Society of Management Accountants of Alberta was formed in 1944. It is affiliated with other Provincial Societies and the Society of Management Accountants of Canada. Since incorporation the curriculum has changed many times to suit the modern needs of the profession.

The governing body of the profession has a responsibility for policing the members of the profession and enforcing the Code of Ethics and the Rules and Guidelines of Professional conduct. The second item in the Statement of Objectives reads,.

> 2. Determine, and design and offer when feasible, those educational and professional programs which are and will be needed by graduate and general members of the Society, and by others in fields of and related to management accounting, to:
> Update their knowledge and professional capabilities.
> 2.1 Achieve proficiency in specialized areas related to management accounting.
> 2.2 Achieve new knowledge and skills essential to more senior levels of management. (Management Accountants Handbook 1970 Statement of Objectives p. 1)

The CMA Accreditation Process

There are three stages to becoming a certified member of the Society of Management Accountants. First, one must complete the prerequisite courses at a post-secondary institution. These courses include financial accounting, management accounting, the management process, and studies in computer systems and quantitative methods. Studies in the legal dimensions of accounting are also required at this stage (Guide to the Profession 1995-1996). This translates to a total of eighteen specified accelerated credit courses with a B average at the Northern Alberta Institute of Technology. It is also equivalent to twenty-six specified credit courses with a six on the nine point stanine scale in the Bachelor of Commerce program at the University of Alberta (Guide to the Profession 1995-1996). The number of credit courses depends on the post-secondary institution and the manner in which the topics are covered within the courses.

Stage two begins with applying to become an associate student. Once accepted, the student may attend the CMA entrance examination preparation sessions and study plan. After successfully completing the CMA entrance examination, the student should apply to become a candidate and enrol in the CMA professional program.

Stage three is the two- year professional program which includes a minimum of two years of practical experience and professional studies. The

work experience must be pre-approved at this stage as the student simultaneously completes the CMA professional studies. Courses include management theory, management practices, professionalism, ethics and emerging management-accounting issues. The student must complete three modules in the first year of the program and four modules in the second year. Upon final approval of practical experience, and satisfactory completion of the modules, the student may apply to become a certified member.

Professional Development

There is no dispute about the need to continue professional education especially with the information explosion in all the professions. Learning is lifelong and with the information explosion one must at least try to keep up to date. This is quite a challenge because one cannot ever keep up to date. Nowlen (1988) puts it this way. "While the pace of contemporary life and particularly the speed with which knowledge is expanding will continue to motivate business and professional people to participate in continuing education, the impossibility of any single person ever being fully up to date has value in and of itself "Nowlen 1988 p. 28). In Houle's (1980) framework for continuing professional education he gave four reasons for continuing professional education, namely maintenance and modernization, preparatory to change, induction into new responsibilities and refresher. Nowlen (1988) gave several

reasons for continuing professional education. He developed three models of continuing professional education. These are the Performance Model, the Competence Model and the Update Model. He refers to his Performance Model as a kind of triage. He explains that continuing professional education includes not only job functions but includes other variables that have an influence on performance. The other strong influences he describes as:

> baseline knowledge and skills; the challenge of new roles; requisite skills in human relations; critical skills of the mind; proficiency on self-managed learning;
> individual developmental progress; and fit of individual and organization to one another; skills in coping with life's surprises as well as with its anticipatable transactions; and the understanding of influences of environment and cultures and the skills that orchestrate them; (Nowlen 1988 pp. 86-87).

People grow and develop after passing professional examinations and should continue their education both on and off the job. CMAs who are post-secondary educators have dual professional responsibilities for professional development. First there is the responsibility to maintain instructional skills for teaching adults. Furthermore as a professional accountant, the Code of Ethics requires CMAs to continue professional education in prescribed areas of accounting and related subjects. Eraut (1994) acknowledges this dual responsibility and remarks "In the case of professional educators, there is also the tension between the further development of specialist's knowledge and research skills expected of the teacher in higher education

and the policy and practice of higher education itself" (p. 9). Heimlich and Norland (1994) have stated that "most adult educators want to be the best they can be and are willing to work to improve" (p. 4). Before there could be improvement though, it is important for adults to first determine their needs. According to Heimlich and Norland, "If adult educators are interested in becoming the best they can be, then it is important to discover just exactly what they have to work with before planning and moving ahead in the growth process" (p. 7). Heimlich and Norland also emphasized that "continuing education for teachers is important to morale, improvement of skills, updating of content, and avoidance of burnout" (Bowles & Smith 1986 p. 8 in Heimlich and Norland 1994 p. 13). Maintaining knowledge will also indirectly reduce the stress level that is related to teaching. An assessment of the needs of CMA educators will help planners to provide programs for this group.

Professional education includes varied learning experiences. Eraut (1994) acknowledged "One central purpose of continuing professional education is to bring practising professionals into contact with new knowledge and new ideas. Sometimes this is conceived in terms of general updating, sometimes a stimulus to critical thinking and evaluation, sometimes a part of the process of implementing a new mandatory policy" (p. 5). Nevertheless studies confirm that professionals are mature persons who are motivated to learn. They are self-directed and will seek appropriate ways to fulfil this need to learn.

Todd (1987) speaks seriously of continuing professional development (CPD). He commented that,

> CPD is not a fringe activity: it is one of the most important resources a professional can draw on to maintain competence. It is not enough to pick topics off the lists in the promotional materials sent out by CPD providers. Rather, CPD needs to be planned around strategic concerns that link CPD to evaluations of practice and to analysis of forthcoming practice demands. (p. 7)

In Todd (1987) Queeney speaks of "The Practice audit Model: A Needs Assessment/Programme Development Process" and recommends a "systematic approach to the identification of practice-oriented needs and the development of programs to address those needs" (p. 32). This study is directed to discover what CMA post-secondary educators need as professional development.

Adult Learners

Adults vary in several ways including learning styles. They have different needs and characteristics (Dean 1994). Adults want to learn for various reasons. Some reasons identified are "career advancement or change; personal development; and escape" (Dean 1994 p. 107). It is therefore important to understand theories of learning and behaviour before one can embark on planning a program for adults (Knowles 1990). Professionals are working adults with responsibilities inside and outside the workplace. These responsibilities place time at a premium.

It is also important to understand learning theories to make good decisions for planning professional development. If learning is described as a "change in the individual, due to the interaction of that individual and his environment, which fill a need and make him more capable of dealing adequately with his environment," (Crow and Crow in Knowles 1990, p. 5), then we can explain why adults want to, or need to continue education. Learning is also defined as "The act or process by which behavioural change, knowledge, skills and attitudes are acquired." (Boyd in Knowles 1990, p. 10). On the other hand education is described as "an activity undertaken or initiated by one or more agents that is designed to affect changes in knowledge, skills and attitudes of individuals, groups or communities" (Knowles 1990, p. 10). In the profession, the adult learner has a vested interest in what is to be learnt. Learning will be very beneficial for the teacher as a learner who is expected to have a very high level of competence. In her study on "Modes of Continuing Professional Education," Powlette (1988) found that "business education instructors identified a mode which is unique to this group of practising professionals"(p. 92). She labelled this mode "inquiry/reinforcement" and concluded that "This inquiry/ reinforcement mode indicated instructors are constantly seeking information to establish guidelines so that they become a fundamental part about the way instructors think or channel their action to provide quality service"(p. 92).

There is still a lot to be discovered about adult learning. Eraut (1994) had this to say

about the subject.

> Behind the numerous policy issues, which enlivened the debate about the appropriate form and structure for professional education lies remarkable ignorance about professional learning. Apart from the limited though valuable literature on professional socialization, we know very little about what is learned during the period of initial qualification beside the content of formal examination. Still less is known about subsequent learning, how and why professionals learn to apply, disregard or modify their initial training immediately after qualification; and to what extent continuing on-the-job or even off-the-job learning contributes to their professional maturation, updating, promotion or reorientation. Yet without such knowledge, attempts to plan or evaluate professional education are liable to be crude and misdirected. (Eraut 1994 p. 40)

A needs assessment will surely help to discover some of the peculiarities of the manner in which professionals want to learn and how they want to learn.

Needs Assessment

Most programs come into being because a need is established. Edward H. Scissons has given various categories of needs as "basic human needs, felt or expressed needs, normative needs and comparative needs" (Adult Education, Fall, 1982 p. 20). Adults are motivated to learn as they experience needs and interest (Knowles 1990). The adult educator plays a major role in filling the gap. The mission of adult educators is to assist in filling the need of the adult students. The educator should have an interest in what is taught and what is learnt. Knowles describes an educational need as "a discrepancy between what individuals (or organizations or

society) want themselves to be and what they are; the distance between aspiration and reality" (Knowles 1980 p. 88). Therefore curriculum should be planned to fill the needs of the students, organizations and society. Will the professional decide what basic skills are needed and how often they are to be revised to meet the needs of the student and the community? There must be some planning and an ongoing assessment and evaluation of these skills so that the professional can be kept up to date at all times. This answers the question of what should be learnt. In most cases the subject matter will be determined by the professional, the governing body of the organization, the government, and society.

In a "1995 Members Survey" administered by the Society of Management accountants of Alberta, members were asked how important they believed it was for the Society of Management Accountants to continue to offer candidates and CMAs continuing professional education. Of the 9% who responded 99% believed that the Society should continue the service. The questionnaire gave 26 competencies as identified by employers relating to various areas of management accounting. Members were asked to identify five of these competencies and categorize and rate them on a scale of 1 - 6. Members had an opportunity to give their opinion on the five most valuable competencies to them, to their organizations presently, and in the next five years. They were asked which competencies they would most likely need to develop in the next two years. Since the response was so low (9%) and details were not given

by industry, it would be important to know what CMA post-secondary educators as a group perceive their needs are.

To expand on this question one must find out how important each of the 26 competencies was perceived to be by CMA post-secondary educators and how well they perceived these needs were met. This study explored how members felt their needs were met, given time and financial constraints.

As needs are determined curriculum models are built for planning to fill the need. A curriculum model is a plan for delivering education and training. Langenbach (1988) describes it as "a plan that creates access to education and training" (p. 2).

Dean (1994) in his curriculum model has suggested that planning must take place with the learner playing a key role. In his approach to program planning he begins with four parameters. They were namely, "Assessing and developing your skills," meaning the planning skills of the adult educator "developing content knowledge, understanding the learning context, and learning about your learners" (Dean 1994 p. 3). He gave the context in which planning must take place, regarding the learner's needs and the knowledge of the subject matter. Surely planning must take place with these considerations in mind. His design of instruction falls within these parameters:

1. "Developing goals and objectives
2. Developing learning activities

3. Developing learner evaluation" (Dean 1994 p. 3).

Dean's (1990) evaluation is ongoing around the design of instruction.

Some curricula plans are a systematic list of sequenced steps to be undertaken. Diamond (1989) gives a list of benefits of a systematic approach. His argument is that a list is easily understood, efficient and effective. His model was also focused on the "ideal." The reason he gives is that "It forces those using it to think in ideal terms" (p. 7). Diamond's model begins with project selection and design, then production, implementation and evaluation. He starts with the ideal and then narrows down to a feasible plan. From his schematic diagram one can conclude that project selection is very critical to his model. He starts with a workable plan that is manageable and this makes good sense. Boone (1985) describes programming as including "the individual and collaborate efforts of the adult educators, and the learners in planning, designing, implementing, evaluating and accounting for adult education programs" (p. 2). Evaluating at every stage is a good thing. It ensures that the objectives are met and that no time or money is wasted if the project is not workable or warranted or needs may be met in another efficient way.

Langenbach (1988) states that "less attention is placed on determining needs of learners or matching activities vis a vis learner's needs." (p. 191). Houle (1980) also proposed "an emerging model for continuing professional education" (Langenbach 1988 p. 108). He studied seventeen types of professionals including

accountants. His framework seemed to imply that all professionals must maintain and modernize their education after induction into the profession. Some professional organizations advocate mandatory professional development. A recent study on the "Acceptability of Mandatory Maintenance of Standards - The Certified General Accountants' Association of Alberta" found that members were supportive of this concept in two surveys, one in 1983 and another in 1990 (Peters 1990). However, "There was concern raised....as to whether the mandatory aspect of this program is at conflict with the concept of professionalism " (Peters 1990 p. 47). There are other views on mandatory professional development. Adam Knox (1992) disagreed:

> Mandatory continuing professional education is an issue that appears to evoke a programming response but that has more disadvantages than advantages. Some practitioners favour regulations requiring a certain number of hours each year as a condition of re-licensure or re-certification. However, requiring all members of a field to participate in educational activities does not in fact protect the public against sub-standard performance by a few members of a profession and leads to some undesirable by-products such as more rigid and unresponsive programs, less public esteem for adult education and avoidance by professional associations in dealing directly with substandard performance. (Knox 1975 p. 250)

This statement is very persuading to professionals who specialize and prefer to continue their education in their area of expertise.

Knox (1975) suggested that adults may be learning without the benefit of an educator's plan or even without conscious realization on the part of the learner.

Knowles (1980) in discussing learning styles gives practice as one of three styles of adult learning. Houle (1980) gives a time line for preparing maintenance and refresher courses. Since adults are self-motivated this time line may not be necessary except for a few who may need to be reminded of their professional duty to maintain competence.

It is difficult to agree with Houle's time line for maintenance and refresher courses. With professionals, new instruments, new laws, and new needs can arise any time and there must be some plan in place for ongoing needs assessment and evaluation and therefore program planning. Some professionals do not specialize in every area of the profession and so each will not have identical needs. This is why continuing professional education should not be mandatory and identical for each person. As the need arises the professional will be self directed to fulfil the need.

"Trade and professional associations and organizations are themselves becoming more active in identifying and addressing their members' training needs" (Continuing Professional Education in Canada 1992, p. 6). This study found that in 1983, 41% of professional and technical persons in Canada took part in training or educational activity (p. 7). When asked what organizations or entities are major providers of continuing professional education the respondents put professional organizations in second place with 15.3% after universities with 28.2% (p. 12). On the future of continuing professional education the respondents wanted it to expand

especially by in-house delivery. On the final question asking for further comments, the respondents wanted "consideration to humanistic, ethical and environmental concerns when developing programs"(p. 17). It was surprising to note that a statement such as "professionals in private practice rarely partake in continuing professional education unless required fiat of their associations or by provincial statute"(p. 17)

Even more surprising was the statement:

> That professionals have to be "forced" to keep their credentials up-to-date may be a reflection of any number of factors in Canadian professionalism and/or continuing professional education. One place to look for a cause, however must surely be in the lack of emphasis upon ethics and humanistic/holistic values in both the original training and the continuing training of our professionals. That is, perhaps, if values were a part of the curricula, professionals would not have to be mandated or coerced to keep up to date. A significant number of the respondents to the survey contended that this should and will change in the future. (p. 17)

Perhaps the surprise is because one would expect all professional bodies to have a code of ethics and a disciplinary committee to deal with incompetence of its members.

It is reasonable to believe that a model for continuing professional education must begin with the needs of the individuals, the institution or governing body and the needs of society. Dean (1994) explains that,

> Learning needs are internally or externally identified discrepancies between the ideal and real state, and motivation is the force that drives a learner to participate in learning to reduce that discrepancy. Motivation to participate is sometimes stymied by barriers either internal to the person or resident in the learning program, community, or society (Dean 1994 p. 36).

Needs may be in response to government regulations or change in standards. So pressure may be exerted from outside the organization and these needs must be recognized. Other change agents may be a causal factor in putting pressure on the organization, for instance the development of new or improved instruments. The improvement may not be needed by all members of the profession since each member is not required to specialize. The governing body of the profession is responsible for discipline and competence of its members as well as enforcing the code of ethics of the members and therefore has a vested interest in ensuring that members have current skills. Members in most professions have a responsibility for their own professional development and must have an interest in program planning. It is important to have communication between the membership and the professional association to ensure acceptance of a program and commitment to it.

Needs should be summarized and selected. Not every need can be addressed in a feasible manner and this is why one can agree with Diamond (1989) that there must be selection of which needs will be addressed. Actual planning can begin after the selection that could be done democratically. Taking inventory of all the needs is like looking at the ideal as suggested by Diamond (1989) but only the "real" needs must be addressed.

In planning, the organization should involve an adult educator who is familiar with planning. Boone (1985) suggests the adult educator as well as learners should

participate in this stage. This should make the planning more efficient. Planning should include setting goals and objectives as well as budgeting. Without the funds the plans cannot continue. Programs may be funded by the professional, the educational institution, the government or by the governing body of the profession. The planner will have to account for funds later. Goals and objectives must be acceptable to the stakeholders or else they will have to be revised to ensure that needs are properly addressed.

On Quality

Much has been written on quality assurance in education and this concept is already grounded in theory. Tovey acknowledged that quality assurance is an immediate priority in the United Kingdom, and studies show that "80 per cent regard college management as the prime movers of the trend" (Tovey 1994, p. 79). This has implications for the Certified Management Accountant and therefore a necessary consideration for the providers of continuing professional education. Quality assurance "is all about putting in place a framework which is designed to maximize the chances of achieving particular goals, as a matter of course "(Tovey 1994, p. 11). The emphasis on quality depends on interpretation and here it refers to customers as the participants as well as the users of the CMAs in and out of the workplace. Quality also implies efficiency, effectiveness, and the economical use of resources. This will

suggest that planners of continuing professional education must do a needs assessment to ensure that the needs of CMAs as stakeholders are addressed in an efficient and effective manner and that quality programming are considered.

Selection of a Model

This study was carried out to investigate the needs of Certified Management Accountants (CMAs) who are post-secondary educators. The study of CMAs who are post-secondary educators lends itself very well to using the Quadrant Assessment Model. First the study was done to investigate the needs of CMA post-secondary educators. Another reason was that competency in both teaching skills and knowledge of content was assumed to be necessary to do a good job. Moreover the professional body requires CMAs to keep up to date on areas related to the field of management. It would make good sense that if CMAs are able to train others who want to join the profession that they should themselves be competent.

Rationale for Using the Model

Sanders (1980) gave six examples of studies that utilized this model. Project ASK was done by the University of Alberta 1979-1981, Deros Study in Connecticut, Pol Study in San Antonio, Texas, Miller Study in Arizona, Gale study in Rural Bolivia and Pol Study in Bolivia. All the studies were related to in-service needs of school

principals, competencies necessary for administrators of community education (Miller study), teachers, superintendents and vice principals (Sanders 1980, p. 20-23).

Recent studies that used the same model are, Msolla (1993) and Sisimayi (1994). Jamal (1996) used the model to investigate the needs of chartered accountants who were managers in business.

In his study, Sanders (1980) wanted to find out what was needed for in-service of principals in the Grande Prairie district of Alberta. The author wanted to use a discrepancy model and selected the "Quadrant Assessment Model." He described this model as "utilizing discrepancy analysis developed by Gaston Pol and Lloyd McCleary at the Research and Development Laboratory, University of Utah" (p. 7).

The Process

To use this model, Sanders (1980) described the process. Participants were given a list of tasks' statements that described the skills and competencies principals needed to do their jobs. They were requested to rate the importance of each task on a Likert-type scale. Principals measured the actual accomplishment of the task by rating them on a similar scale. The degree of importance of each task would measure the desired ideal and the degree of accomplishment would measure the outcome. Any discrepancy between the real and the ideal state would be the discrepancy and that would be the "need" or "gap" to be filled. This gap he hoped would be filled with in-

service courses and workshops.

Description of the Model

As its name implies this model is made of four quadrants. The statements with high scores on both scales were placed in quadrant one. This meant that the tasks were very important and were very well accomplished. There would be no need in those areas.

Those tasks with high scores in importance and low level of accomplishments were placed in quadrant two. This meant that help was needed in those areas since there was a discrepancy between what was important and what could be accomplished. In other words the important tasks were not very well accomplished.

Quadrant three included tasks that were low in importance and were not very well done. This could indicate that less time was spent on less important tasks. It could also mean that some unimportant tasks were not very well done.

The tasks that were less important and very well accomplished were placed in quadrant four. This means that these tasks were easy to accomplish.

The study was delimited to the in-service needs of principals in the Grande Prairie region of Alberta. The instrument was a questionnaire made up of a list of task statements first used by Project ASK. These tasks described the role of the Alberta Principal; 113 tasks were listed. Trustees, superintendent or assistant superintendent,

principals, assistant principals and teachers were asked to respond to the questionnaire. They had to rate each question twice, once on importance and then on accomplishment of those tasks. The list of tasks was piloted in southern Alberta by principals at a workshop in that area.

Once responses were received they were aggregated by type of respondents and fitted on the Model. Descriptive statistics were used to give the mean, median and standard deviation of each answer and by group. This would determine if there was a correlation between perception by type of participants.

Adapting the Quadrant assessment Model

The competencies included on the instrument in this study were developed by the Society of Management Accountants in their 1995 survey. The list of teaching and learning skills were developed by using textbooks and consulting with other graduate students. CMAs in post-secondary education may be full time, part time, or in administration as well as teaching. These were some of the categories used to investigate if needs are different for different sectors of the group or are correlated in any way. Again descriptive statistics were used to find the mean, median and standard deviations for each section of the group.

For the Society of Management Accountants professional development is based on employer's needs (1995 CMA Survey and 1995 Accounter Winter 1995)

Post-secondary institutions also give some professional development courses. Questionnaires were used for assessing needs in other professions for example in Geriatric nursing (Greschuk 1989).

It seems to follow that since this model was used successfully to find the needs of people in the educational field and in the professions that it would have applicability to the study of CMA post secondary educators' needs.

The responses could be categorized and placed into the four quadrants of the model. The result would be needs that are met through available courses and seminars already in place and those that are not available. Persons planning professional development for CMA post-secondary educators could use the outcome for planning and programming professional development.

Concluding Remarks

The purpose of the literature review was to describe the relevant literature in the area of needs assessment, professional development, in instructional as well as content needed for CMA post-secondary educators. In the next chapter there is a discussion of the design of the study and how the professional development needs will be identified.

Chapter III

Methodology

Introduction

The purpose of this study was to identify the continuing professional education needs of CMAs who are post-secondary educators and to determine how these needs may be met. The design of the study is described in this chapter. The description of the population, the data collection instrument, data collection and analysis, and the Quadrant Assessment Model were also addressed.

Instruments and Techniques

The study was a needs assessment, carried out to determine which needs are perceived to be met: whether there was a discrepancy between what was offered for professional development and what was needed by CMAs. To answer this question data on perceptions had to be obtained. The survey method and a questionnaire were used for data collection. Galbraith (1990) has listed several data collection methods including "individual interviews, questionnaires, tests, observation, checklists, self assessment, diagnostic instruments, surveys, performance analysis or marketing analysis techniques to assess the most appropriate educational need" (p. 9). Berg (1995), suggested a formally structured schedule of interview questions will ensure

comparable responses. A questionnaire was chosen because it would be less time consuming and was expected to give similar information as would be received from an interview. Support for using the survey method is given by Dean (1994) who explains that, "A survey is a common method of needs assessment in adult education when large numbers of adult learners are involved" (P. 47). In this case although the population was small a survey was thought to be the most appropriate method. Time is at a premium for educators and interviewing all educators in this group would not have been practical. The use of a questionnaire would also allow participants to complete it in their own time. This group of educators should be familiar with all the technical terms used in the questionnaire and has similar understanding of the questions so that the responses would be comparable.

Population

The population sample for the study was CMAs employed as educators at the post-secondary level in Edmonton, Alberta. These included educators at post-secondary institutions and other educators in the pre-professional and professional program which students must complete successfully before being inducted as a CMA. Both full-time and part-time instructors were included. The reason for doing a census was because the population is small.

Names were collected from directories of instructors in student information

packages from post-secondary institutions and from conversations with other CMAs in post-secondary education. One post-secondary institution did not publish or give names of its part-time staff as this information was thought to be confidential. However staff at that institution agreed to mail the questionnaires to the CMAs who taught at their institution. There was no way of knowirg if there were duplications of instructors at this institution and any other post-secondary institution. It was assumed that each instructor would fill out and return one questionnaire.

Development of the Instrument

The first step was to prepare a covering letter (Appendix B) explaining the purpose of the survey and type of data that were required and its potential usefulness to educators. The instrument was developed after consideration of several methods of data collection. The questionnaire was short and was designed to take participants about fifteen minutes to complete (See appendix C). Although the instrument was easy to complete it solicited the information required. Part A asked for demographic information so that information could he analyzed by characteristics including age and number of years since entering the instructing profession. Part B enquired about how difficult it was for members to obtain training in the areas of new information, new laws and regulations and technology. For this a Likert-type scale was used to determine the perceived importance of each item and the perceived level of difficulty

in obtaining the information, knowledge or skill. Part C was similar to part B except that it asked about the major competencies from the body of knowledge needed for refresher courses or to prepare to instruct in different areas. Part D concentrated on some performance enhancing skills generally needed by adults. The last part, part E, consisted of open-ended questions and asked about the preferred method and timing of delivery.

Support for the type of information required was given by Galbraith (1990) and Nowlen (1988). In speaking of adult educators, Galbraith (1990) remarked that they should "possess three specific areas of knowledge: knowledge of content, knowledge of learners, and knowledge of methods" (p. 4). Since the job of teaching must include content, it was important to list the content that must be taught. This is also important because the code of ethics requires that CMA members keep up to date in their area of interest. That is a professional responsibility. The list of competencies was taken from the CMA 1995 Survey which stated that these competencies were identified by employers as important. The teaching competencies were developed from text-books and consultation with instructors. In his performance model of continuing professional education Nowlen (1988) noted when speaking of performance enhancing needs that,

> the focus also included any other variables that are demonstrated to have a strong influence on performance: baseline knowledge and skills; the challenge of new roles; requisite skills in human relations; critical skills of mind; proficiency in self-managed learning; individual development progress, organization development balance, and the fit of individual and

> organization to one another; skills in coping with life's surprises as well as its anticipatable transitions; and understanding of the influences of environment and cultures and the skills that orchestrate them ."(pp. 86-87)

Pilot Test

Before the questionnaire was piloted, it was reviewed by classmates and instructors at the Department of Educational Policy Studies, University of Alberta. An administrator at another post-secondary institution examined the questionnaire for ambiguity and complexity. This administrator had experience with needs assessment instruments and professional development of educators at his post-secondary institution.

To ensure reliability, quality and efficiency, it was important to do a pilot study to determine if the questionnaire was unbiased, covered all the information needed and was appropriate for the task. It was piloted in February 1996 with two CMAs who are educators at a post-secondary institution. They were requested (Appendix A) to complete the questionnaire (Appendix C) and check the time it took to complete. They were also asked to report any ambiguities and make comments regarding content and style and to make suggestions for possible improvement.

The questionnaires were returned within a week. The CMAs reported that it took fifteen to twenty minutes to fill out the instrument. After comments were received, it was necessary to make two minor adjustments to the questionnaire.

Comments included that the time given to fill out and return the questionnaire should have been increased to three weeks. It was suggested that a change be made from "computer-enriched instruction to "computer-assisted instruction techniques."

Administration of the Instrument

The names of participants were compiled by post-secondary institutions and CMA educators whose names were known, were contacted and asked if they were interested in participating in the study. All those contacted agreed to participate. There was a total of fifty-two possible participants. The questionnaires were either taken to the institution if convenient or mailed. One group of CMA post-secondary educators was given reply envelopes addressed to their institution's internal mail. All the other CMA post-secondary educators were given stamped self-addressed envelopes to mail their replies.

Data Analysis

The Quadrant Assessment Model described in chapter 2 (Sanders 1980, Msolla 1993 and Sisimayi 1994), was selected to analyse responses to the questionnaire (See Figure 1). The data were summarised and tabulated and a description of the result is included in Chapter 4. Descriptive statistics were used in the analysis.

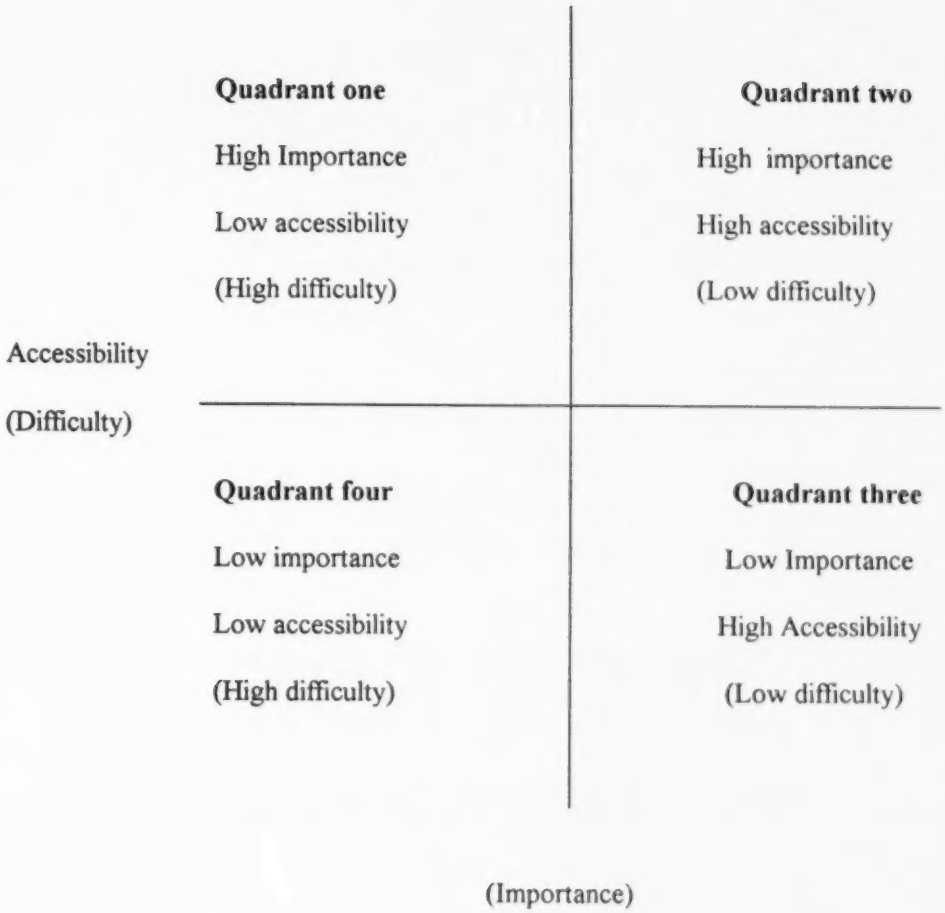

Figure I. Quadrant Assessment Model
(Adapted from Sanders 1980 p. 18)

Quadrant 1

In this quadrant were placed those skills and competencies with high priority and importance but were difficult to access by CMA post-secondary educators. There are the needs that are not met and the skills that the study would identify and address as a major gap to be filled by planners of professional development.

Quadrant 2

In this quadrant were placed the skills that were of high priority and importance but are not difficult to obtain by CMA post-secondary educators. Planners are already paying attention to needs in these areas. They must ensure that courses in these areas will always be available and accessible to CMA educators.

Quadrant 3

Those skills that are not very important but are easily available must not be ignored. Attention is needed in these areas. It may mean that the particular skill has become obsolete and replaced by another technique or new knowledge. It may also mean that these skills may become increasingly important in the future. This was noted in the ASK project (Sanders 1980).

Quadrant 4

Some skills appeared to be not very important but are difficult to obtain. Importance here is relevant to other skills. The Society of Management Accountants 1995 Survey had included all skills that are important to the profession but all these skills may not be equally important to CMA post-secondary educators. It will still be necessary to ensure that these skills will be always available.

Ethical Issue and Concerns

To continue this study permission was received from the Ethics Review Committee, Department of Educational Policy studies, University of Alberta. It was not necessary to receive permission from the Society of Management Accountants of Alberta. However, the Society of Management Accountants was informed of the study and had given its tacit approval.

Summary

In this chapter the method used to collect and analyse data and the reasons for choosing the method were described and discussed. The next chapter shows how the results of the survey were aggregated and analysed. Frequency distributions and cross tabulations were used to display results among the variables.

Chapter IV

Presentation of Results

Introduction

In the previous chapter the method of data collection was discussed. In this chapter the data collected are described and analysed. The results are given in the same order as asked in the survey questionnaire. The results will be directed toward answering the research question which was to delineate the professional development needs of CMA post-secondary educators and to suggest how these needs may be met.

The chapter begins by describing the demographic profile of the participants. This is followed by a summary of aggregated needs. The needs are measured by participants' ratings on the perceived degree of importance of and difficulty in accessing, professional development topics. The ratings are tabulated using the four quadrants of the Quadrant Assessment Model described in Chapters Two and Three. Especially notable to this study are the needs that are relatively important and difficult to obtain. These needs are further analysed by participants' gender, age, level of academic qualification and years as a post-secondary educator. The preferred method of learning and time of delivery are tabulated. After this, findings on the method of funding of professional development preferred are discussed. The findings derived from opened-ended questions are summarized towards the end of the chapter. The

chapter ends with a summary of the findings of the research.

Responses to the Questionnaire

Rudenstam & Newton (1994) advised that "most results begin with a description of the sample" (P. 80) and recommends "simple demographics may be given in tabular form." Tables are used to give most of the results of the study.

The response rate of 69% of the population sample should give reliable results. The rationale for this was based on the fact that 69% of the population reported on what was important to them and the difficulty in accessing various topics for professional development. Table 1 presents the response rate to the survey.

Research has shown that responses to questionnaires are usually low. Fink and Kosecoff (1985) have stated that this "tends to be entirely subjective and the higher the better" (p. 18). The Society of Management Accountants of Alberta received a 9% response on their 1995 member survey (Management Accounter Winter 1995). Whether such a low response was sufficient to give meaningful information on topics to be considered for professional development may be disputed. The response to the questionnaire administered in this study was much higher (69%). The results from this study should provide reliable information for planners of professional development for CMA post-secondary

Table I. Number of Responses to the Questionnaire

Questionnaires	*No.*	*%*
Questionnaires filled out and returned	36	69 %
Questionnaires not filled out but returned	3	6 %
Questionnaires not returned	13	25%
Total	52	100%

educators. There were no queries as to the meaning of the questions and unanswered portions of the questionnaire were negligible. This gives the impression that the survey method utilizing the questionnaire was appropriate for the study and that the results are expected to be valid.

Demographic Profile of Respondents

The first section of the questionnaire provided information concerning characteristics of participants. It was important to know the age of each respondent, the number of years as a CMA, the type of responsibilities, gender, years of experience as a CMA post-secondary educator and the academic background.

Age and Gender of Respondents

Table 2 presents the tabulation of age and gender. Most of the participants

(75%) were between the ages of 31 and 45. The majority of the women (87%) were in this age category. The median age and the mode were in this range. One male was 30 years old or younger, and six men were over 45 years old.

Results of the survey showed that the majority of CMA post-secondary educator respondents were male (58%). There were 21 men and 15 women who answered the questionnaire. Figure 2. shows the age and gender frequencies.

Table 2. Distribution of Paritcipants' Responses by Age and Gender

Age	*Male*	*Female*	*Total*	*%*
under 30	1		1	3
31-45	14	13	27	75
over 45	6	2	8	22
Total	21	15	36	100

Age and gender

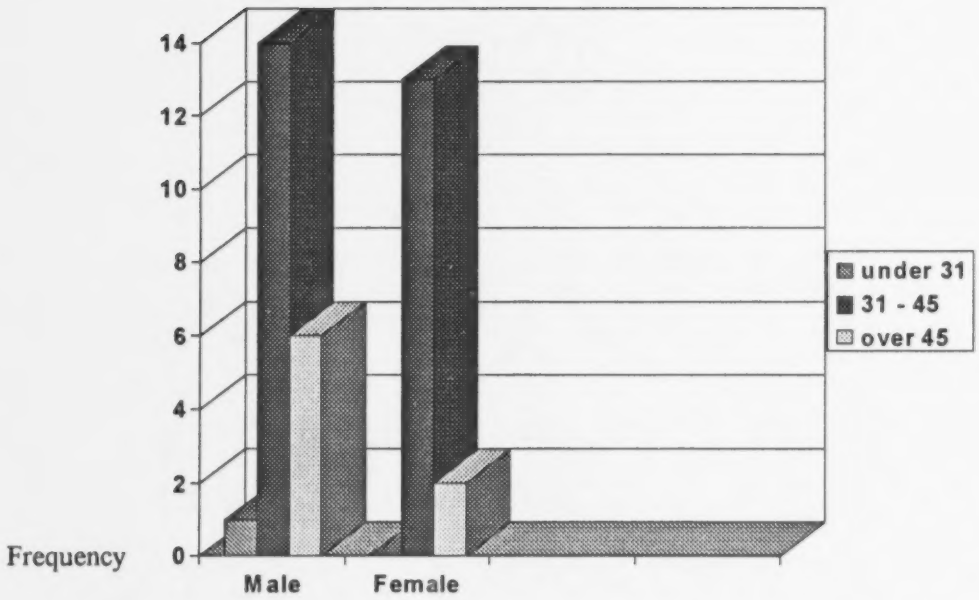

Figure 2. Age and Gender of Respondents to the Questionnaire

Year CMA Designation Received

The mean year participants received their designation was 1985. Most of them received the designation before 1990 (81%). In 1990 the requirements for entering the profession were changed to include a new professional program. In the new accreditation process students must first write the CMA Entrance Examination and if successful, apply to become a candidate member and enrol in the CMA Professional Program (Guide to the Profession 1995-1996). Table 3 presents the years when CMA post-secondary educators received their designation.

Most full- time instructors (73%) received their designation before 1986 while 75% of part-time instructors received their designations 1986 or later. This information shows a difference between the characteristics of full-time and part-time instructors.

Another observation was that 63% of males received their designation 1985 or earlier while 47% of women received their designation 1986 or later. The actual distribution of years in which the designation was received is presented in Table 3.

Table 3. Years Participants Received the CMA Designation

Year	*f*	*%*	*Cumulative %*
1971	1	2.8	2.8
1975	1	2.8	5.6
1976	1	2.8	8.3
1977	1	2.8	11.1
1981	4	11.1	22.2
1982	2	5.6	27.8
1983	2	5.6	33.3
1984	4	11.1	44.4
1985	3	8.3	52.8
1986	1	2.8	55.6
1987	3	8.3	83.9
1988	3	8.3	72.2
1989	3	8.3	80.6
1990	1	2.8	83.3
1991	2	5.6	88.9
1992	2	5.6	94.4
1993	1	2.8	97.2
1994	1	2.8	100.0

Table 4. Responsibilities and Gender of Participants

Educators	*Male*	*Female*	*Total*	*%*
Full time	10	8	18	50
Part-time	11	6	17	47
Marker	-	1	1	3
Totals	21	15	36	100

Responsibilities of Educators

Table 4 revealed that half of the participants were full-time instructors. Most of the remainder were part-time instructors. Four of the part-time instructors were moderators (instructors) of the new professional program. The needs of full-time and part-time instructors are analysed later in the chapter. One person reported not having instructed for a while but was involved in marking papers in the professional program.

Eleven full-time CMA post-secondary educators were between the ages of 31 - 45 and seven were over 45 years old. Fifteen part-time post-secondary educators were in this age group. There was one part-time person under 30 years old and one over 45 years of age. This information gives a profile of who are instructing and their

roles.

Table 5. Number of Years as CMA Educator by Gender

Years as CMA educator	*Male*	*Female*	*Total*	*%*
six and under	8	9	17	47
over six	13	6	19	53
Totals	21	15	36	100

Almost half (47%) of instructors who responded reported they taught for six years or less. Table 5 displays that eleven instructors taught for between six and ten years and five for between eleven and fifteen years. There were only three who taught for more than fifteen years.

All instructors over 45 years old taught for more than five years. Of the instructors in the age range of 31-45, seventeen had taught for five years or less and eleven taught for more than five years.

Academic Education and Gender

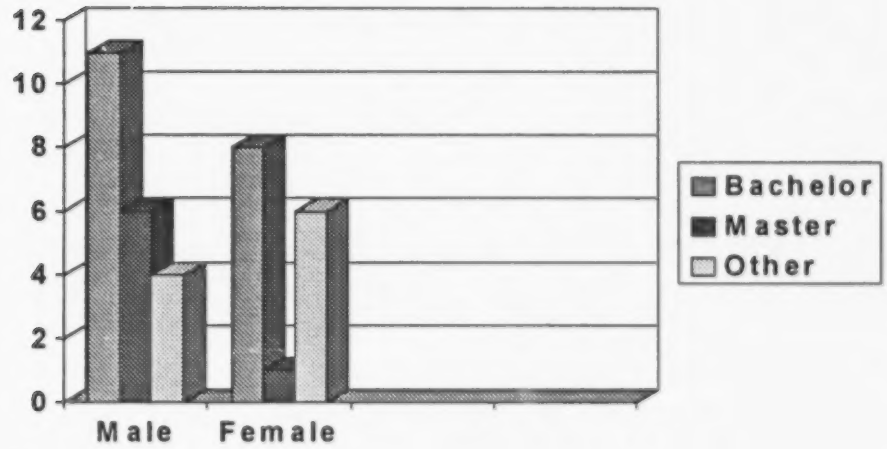

Figure 3. Academic Qualifications and Gender of Participants

Highest Level of Academic Education

Several of the instructors (72%) reported that they had attained either a Bachelor's or a Master's degree. The remainder had a diploma from a post-secondary institution. Of the respondents over 45, all had at least one degree. Four have Bachelor's and four have Master's degrees. Of the 31-45 age group, 67% had degrees.

Table 6. Highest Level of Academic Qualification by Gender

Qualification	*Male*	*Female*	*Total*	*%*
Bachelor	11	8	19	53
Masters	6	1	7	19
Other	4	6	10	28
Totals	21	15	36	100

By the year 2000 all CMAs will be required to have a degree or 'equivalent' before being admitted to the profession (Guide to the Profession 1995-96). The level of academic qualification is presented in Table 6. Of female instructors, 60% have degrees while 81% of men have degrees.

Professional Development Experience

Part of the demographic information required was on where educators received professional education in the past. The results showed that 81% of those surveyed received professional development through the Society of Management Accountants. Of the respondents, 56% received professional development through their educational institution. When asked about the type of professional development received, 69% reported taking professional development related to education while 67 % reported taking courses related to management accounting.

Summary of Demographic Profile

The typical CMA educator is male, between the ages of 31 and 45, with a degree. The educator likely has held the CMA designation for ten years. This person may be either full-time or part-time and has done some professional development either at an educational institution or through the Society of Management Accountants or both. Most CMA post-secondary educators obtained their professional development on both education topics and on CMA core topics.

Identification of CMAs' Needs

The results of the survey were tabulated using the Statistical Package for the Social Sciences (SPSS). This software package was used to determine the description

of the population sample and has provided some patterns identified by this group of educators. It was easy to subdivide the group into sub-groups to look for commonalties and differences. There were 10 update topics included on the questionnaire, 26 Competency topics and 9 performance enhancing topics.

The study was directed toward finding out the professional development needs of CMAs in education. Need was defined as the discrepancy between what CMA post-secondary educators want as professional development and what is available. To this end the Quadrant Assessment Model was used to identify the most important needs. The survey questionnaire used two scales of 0 - 5, one for rating importance of professional development topics and the other for rating difficulty in obtaining professional development in these areas.

The mean rating on importance was 3.10, with variability about the mean of .39. From statistical tables this translates to members' preferences on importance being about 15 % around the mean thereby generally showing consensus on the degree of importance (Mendenhall & Rienmuth 1978). All topics rated higher than this mean were relatively very important and therefore must be considered as necessary topics to be included for professional development.

The mean rating on level of difficulty was 2.59. The standard deviation from this mean was .34. This indicated a 13% difference from the mean and demonstrates even closer agreement among the respondents on degree of difficulty. This

Table 7. Topics rated by Degree of Importance

Rate No.	*Topic Type*	*Topic No.*	*Name of topic*	*Mean*	*SD*
1	U	5	Technological changes (new programs and equipment	3.92	0.84
2	U	6	Instructional methods	3.78	1.17
3	U	10	Ethics for instructors	3.67	1.33
4	C	21	Interpersonal communication	3.67	1.01
5	U	4	Changes to CMA Standards	3.64	1.42
6	U	9	Communications technology	3.58	1.02
7	U	7	Adult educator skills	3.56	1.08
8	C	20	Decision making	3.54	1.17
9	C	24	Team skills	3.53	1.06
10	C	19	Business ethics	3.39	1.23
11	U	8	Computer-assisted instruction techniques	3.39	1.25
12	C	25	Goal setting	3.37	1.09
13	C	23	Managing change leadership	3.36	1.10
14	C	13	Technological change	3.33	1.10

Rate No.	Topic Type	Topic No.	Name of topic	Mean	SD.
15	C	8	Financial Management	3.33	1.29
16	C	22	Performance Management	3.25	1.13
17	C	14	Quality Management	3.25	1.16
18	P	1	Stress management	3.22	1.51
19	C	4	Business evaluation	3.17	1.13
20	C	15	Organizational trends	3.17	1.23
21	C	6	Budgeting	3.17	1.42
22	C	18	Individual ethics	3.14	1.42
23	C	11	Financial planning - personal and business	3.14	1.31
24	C	17	Corporate culture	3.08	1.02
25	C	16	Industry knowledge	3.06	1.12
26	C	26	Management Control systems	3.05	1.24
27	P	7	Life-style improvement	3.03	1.56
28	C	5	Strategic Systems Planning	3.00	1.29
29	C	3	Productivity improvements	3.00	1.29
30	C	9	Taxation	2.97	1.40
31	U	2	CICA pronouncements	2.92	1.36

Rate No.	Topic Type	Topic No.	Name of topic	Mean	SD.
32	P	9	How to do a workshop	2.89	1.35
33	C	1	Activity-based Management	2.89	1.36
34	C	8	Financial Statement Presentation	2.89	1.37
35	C	12	International Business Issues	2.86	1.42
36	U	3	Changes to Business Legislation	2.75	1.25
37	C	2	Strategic Cost Management	2.72	1.30
38	P	4	Taking care of ageing parents	2.64	1.46
39	P	6	Enrichment for couples	2.61	1.47
40	C	10	EDP Needs appraisal and installation	2.58	1.20
41	U	1	Income tax updates	2.57	1.40
42	P	8	Leisure activities	2.53	1.50
43	U	7	Life-style improvement	2.47	1.42
44	U	3	How to handle mid-life crisis	2.40	1.48
45	U	4	Talking to teenagers	2.36	1.57

U= Update C= Competency P =Performance enhancing

agreement on the level of difficulty experienced in accessing professional development topics gives some validity to the study. The results are reliable because this is a population sample.

topic was 'technological changes (3.91 on a scale of 0 - 5). There was little variability about the mean (0.84). This shows agreement on the importance of this

Items rated higher than the mean of 2.59 were considered to be relatively difficult to obtain as professional development. These are the topics that the study was meant to identify so that planners may include them as in-service topics.

Table 7 provides all topics rated in order of importance. The highest rated topic. This was followed by 'instructional methods' and 'ethics for instructors.' The variability about the means of all topics was between .84 and 1.57 respectively. Basically this showed that there was consensus on the ratings of topics.

Table 8. Responses Listed by Degree of Accessibility

Rate No.	*Topic Type*	*Topic No.*	*Name of Topic*	*Mean*	*SD*
1	C	17	Corporate culture	3.23	1.03
2	C	19	Business ethics	3.06	1.19
3	C	16	Industry knowledge	2.97	1.20
4	C	23	Managing change leadership	2.94	1.08
5	C	12	International business issues	2.94	1.16
6	U	6	Technological changes (New programs and equipment	2.92	1.44
7	U	8	Communications technology	2.86	1.13
8	C	20	Decision making	2.86	1.12
9	C	13	Technological change	2.86	1.12
10	C	22	Performance Management	2.82	1.14
11	U	10	Ethics for instructors	2.81	1.41
12	C	3	Productivity improvements	2.80	1.05
13	P	9	How to do a workshop or seminar	2.80	1.05

Rate No.	Topic Type	Topic No.	Name of Topic	Mean	SD
14	P	4	Taking care if ageing parents	2.80	1.18
15	C	26	Management control Systems	2.77	1.14
16	C	5	Strategic Planning systems	2.74	0.98
17	U	8	Computer -assisted instruction techniques	2.72	1.41
18	C	18	Individual ethics	2.71	1.43
19	U	7	Adult educator skills	2.69	1.40
20	C	25	Goal-setting	2.69	1.18
21	P	6	Enrichment for couples	2.69	1.38
22	P	7	Life-style improvement	2.66	1.28
23	C	3	Productivity improvement	2.66	1.16
24	U	3	Changes to Business Legislation	2.66	1.28
25	C	1	Activity-based Management	2.63	1.33
26	C	10	EDP - Needs appraisal and installation	2.63	1.06
27	P	3	How to handle mid-life crisis	2.61	1.39
28	C	24	Team skills	2.60	1.33
29	C	15	Organizational trends	2.60	1.14
30	P	5	Talking to teenagers	2.60	1.45

Rate No.	Topic Type	Topic No.	Name of Topic	Mean	SD
31	U	5	Technological Changes (new programs and equipment	2.58	1.22
32	C	2	Strategic cost management	2.57	1.19
33	C	14	Quality Management	2.54	1.24
34	C	7	Financial management	2.49	1.34
35	C	11	Financial Planning - personal and business	2.43	1.24
36	C	21	Interpersonal communications	2.37	1.21
37	C	6	Budgeting	2.34	1.33
38	P	1	Stress management	2.29	1.32
39	C	8	Financial Statement Presentation	2.17	1.34
40	C	9	Taxation	2.05	1.26
41	P	8	Leisure activities	2.03	1.34
42	P	2	Preparing for retirement	2.00	1.26
43	U	4	Changes to CMA Standards	1.83	1.36
44	U	1	Income Tax Updates	1.80	1.51
45	U	2	CICA Pronouncements	1.68	1.41

U= Update C= Competency P= Performance enhancing

Table 8 presented topics rated on order of difficulty. The most difficult topic to access was 'Corporate Culture', followed by 'Business ethics' and 'industry knowledge'. Workers within a business environment are expected to experience and understand the 'Corporate Culture'. CMAs in academe may need experience in the business environment to fully understand the 'Corporate Culture'. The needs in this area may be filled by some type of industrial leave arrangement or exchange program.

Applying the Quadrant Assessment Model

There were 45 topics which participants were asked to rate on two scales of 0 - 5. One rating was on the degree of importance, and the other on the degree of difficulty in obtaining professional development on these topics. The major needs were those that were of more important and the more difficult to access. These were identified from the findings and placed in quadrant one of the Quadrant Assessment Model. The results are presented in Figure 4.

Quadrant 1

Fifteen topics were identified as relatively important and difficult to access. The top four are update needs in the area of instruction. They are 'Instructional Methods, Ethics for Instructors', Communications Technology', and 'Adult Educator Skills'. These four instructional needs identified by participants will be discussed in the

next chapter. Another update topic included in this quadrant is 'Computer-assisted instruction techniques'.

There were ten competency topics included in this quadrant. The first three competency topics included in this quadrant were decision making, team skills, and business ethics. No performance enhancing topics were included in this quadrant.

Quadrant 2

In quadrant two, those topics that were relatively important but less difficult to access are listed. There were eight topics in this area. Five of these were competency topics, two update and one performance enhancing. The topic with the highest rating was technological changes. The other update topic was 'Changes to CMA Standards'. This shows that eight of the ten update topics were rated as relatively important to participants. Stress management is noted in this group and is rated the highest topic on importance of the performance enhancing skills.

The first four important topics that were easily accessible are 'technological change', inter-personal communications, 'changes to CMA standards', and financial management'.

Quadrant 3

In this quadrant were placed the topics that were not very important to CMA post-secondary educators and not difficult to access. Seven items are listed in this quadrant. The lower rated topics were 'Leisure Activities' and 'Preparing for Retirement'. Taxation and Income tax Updates were also rated as not very important and not very difficult to access by CMA post-secondary educators.

Quadrant 4

Quadrant four represents those topics that are perceived to be less important but difficult to access. Fifteen topics were placed in this quadrant. Eight were competency topics, six were performance enhancing and one update topic. In total the topics very difficult to access were 29. (Fifteen are very important and fourteen not as important.)

Six of the nine performance enhancing topics are included in this category Although these are not core CMA or teaching related, they represent needs that are not easily accessed. Seven of the 28 competency topics are included in this group.

Quadrant 1 (High Importance, Low accessibility)	**Quadrant 2 (High Importance High accessibility)**
U 6 Instructional methods U 10 Ethics for instructors U 9 Communications technology U 7 Adult educator skills C 20 Decision making C 24 Team Skills C 19 Business Ethics U 8 Computer-assisted instruction techniques C 25 Goal Setting C 23 Managing change leadership C 13 Technological Change C 22 Performance Management C 4 Business Evaluation C 15 Organizational Trends C 18 Individual Ethics	U 13 Technological Change (New programs and equipment C 21 Interpersonal communications U 4 Changes to CMA standards C 7 Financial Management C 14 Quality Management P 1 Stress management C 6 Budgeting C 11 Financial planning - business and personal
Quadrant 4(Low importance Low accessibility)	**Quadrant 3 (Low Importance High accessibility)**
C 17 Corporate Culture C 16 Industry Knowledge C 26 Management Control Systems P 7 Life-style Improvement C 5 Strategic Systems Planning C 3 Productivity Improvements P 9 How to do a workshop C 1 Activity Based Management C 12 International Business Issues U 3 Changes to Business Legislation P 4 Taking care of Ageing Parents P 6 Enrichment for couples C10 EDP Needs Appraisal and Installation P 3 How to handle mid-life crisis P 4 Talking to teenagers	C 9 Taxation U 2 CICA Pronouncements C 8 Financial Statement Presentation C 2 Strategic Cost Management U 1 Income Tax Updates P 8 Leisure Activities P 2 Preparing for Retirement

Figure 4. Ratings of Topics Fitted into the Quadrant Assessment Model
C= Competency P = Performance enhancing U = Update

Changes in Legislation was identified as low importance and difficult to access.

In all, 23 of the 45 topics were rated as relatively important to participants. On the degree of difficulty 30 out of 45 topics were rated as relatively difficult to obtain.

Further Analysis of Needs

Needs by Gender of Participants

The respondents were divided into sub-groups by gender (Appendix E) to determine if there were any significant differences in degree of importance and difficulty between these groups.

Table 9. Differences in Rating of Topics by Gender

Topic	*Importance Male means*	*Importance Female means*	*Accessibility Male means*	*Accessibility Female means*
Communications technology	3.29	4.00	3.04	2.60
Enrichment for Couples	2.95	2.13	3.25	1.93
Leisure Activities	2.61	2.40	2.45	1.66

Table 9. shows that there are few significant differences between male and female participants. Women rated "communications technology" (mean of (4.00) significantly more important than men did (mean of 3.29). There is very little variability about the mean on the women's ratings (.37). On the normal curve this translates to 10%.

Men perceived courses on 'enrichment for couples' were more difficult to access. Women felt 'leisure Activities' were more difficult to access. Again no differences were observed in the degree of difficulty by instructors forty-five or younger and those over forty-five. Some differences were observed in the degree of importance of some topics. These ratings are exhibited on Table 11 and on Appendix E.

The most noticeable difference was the rating on "changes to CMA standards', which the younger group rated as very important (mean of 4.00 compared to 2.37).

Table 10. Differences in Ratings of Topics by Number of Years in the Profession

Topic	*Importance 1985 and earlier*	*Importance 1986 and later*	*Accessibility 1985 and earlier*	*Accessibility 1986 and later*
Business Legislation	2.31	3.23	2.33.	3.00
Productivity improvement	2.53	3.53	2.55	2.76
Business Valuation	2.73	3,64	2.60	3.00
Industry knowledge	2.57	3.58	3.16	2.76
Corporate culture	2.73	3.47	3.30	3.05
Performance Management	2.78	3.76	2.53	3.12
Management Change Leadership	2.95	3.82	2.83	3.05
How to handle mid-life crisis	2.94	1.82	2.83	2.37

Differences Observed by Number of Years in the Profession

Some significant differences on the degree of importance were noted among participants who were inducted into the profession before 1986 and those inducted after 1986. In Table 10. it may be seen that persons who were in the profession for a longer time, rated some topics lower on importance than those who were in the profession for a shorter period. There was very little variability on the ratings which were mostly one point on the scale except for 'Management Change Leadership' and 'Industry Knowledge' where the variability was almost three points. There were no differences on the level of difficulty experienced in accessing these topics.

A significant difference in rating of difficulty was also noted in some topics when looking at number of years in the profession. Those participants who were in the profession for over five years expressed more difficulty in obtaining courses on 'Taking Care of Parents' (3.33 compared to 2.23) and 'Talking to Teenagers'(3.22 compared to 1.94). This result could be dependent on age and stage of life of the participants.

Differences observed by age groups

Again no differences were observed in the degree of difficulty by educators forty-five years old or younger and those over forty-five. Some differences were observed in the degree of importance on some topics. These ratings are exhibited on

Table 11. The most noticeable difference was on 'changes to CMA standards', which the younger group rated as very important (mean of 4.00 compared to 2.37).

Table 11. Differences in Ratings of Topics Observed by Age

Topic	*Importance 45 and under*	*Importance over 45*	*Accessibility 45 and under*	*Accessibility over 45*
Income tax updates	2.85	1.88	1.80	1.75
Changes to CMA Standards	4.00	2.37	1.85	1.50
Instructional methods	3.96	3.37	3.07	2.25
Adult educator skills	3.70	3.12	2.85	2.00
EDP Needs Appraisal	2.80	1.62	2.65	2.37
Financial Planning	3.41	2.25	2.34	2.50
Technological Change	3.55	2.62	2.88	2.63
Individual Ethics	3.37	2.25	2.70	2.88
Business Ethics	3.55	2.75	3.21	3.00
Decision making	3.73	2.88	2.76	3.12
Interpersonal Communication	3.85	3.00	2.26	2.50

This may be expected because there are different life of life when past experience and growth may require special skills.

Table 12. Differences Observed between Full and Part-time

Topic	*Importance Full-time*	*Importance Part-time*	*Accessibility Full-time*	*Accessibility Part-time*
Computer -assisted instruction techniques	4.00	2.76	2.67	2.76
Taxation	2.88	3.00	1.55	2.47
Individual ethics	2.61	3.64	2.66	2.68
Business ethics	2.94	3.82	3.11	2.93
Performance management	2.83	3.64	2.59	3.00
Team skills	3.17	3.88	2.05	3.13
Talking to teenagers	2.83	1.83	2.83	2.55

Differences in Need Identified by Responsibilities

The majority of participants were either full-time and part-time instructors. A few significant differences were noted in their preferences for professional development. These differences are presented in Table 12. Full-time instructors rated

'computer-assisted instruction techniques' higher (mean 4.00) than part-time instructors (mean 2.76). Another difference noted was on the rating of 'talking to teenagers' which was rated higher on both importance and difficulty by full-time instructors. 'Business ethics' and 'individual ethics' were more important to part-time instructors.

Responses to Open-ended Questions

Some open-ended questions were used to give participants an opportunity to express their opinion on matters related to professional development activities. These questions were also intended to answer how and when courses should be scheduled. The information would answer the research question on how their professional development needs may be met.

Method of Delivery

To address the needs of CMA post-secondary educators, sub-question two asked "What medium may be used to deliver professional development for CMA post-secondary educators?" This was accomplished by using a list of methods and asking participants to identify their preferred methods. They were also given an opportunity to add another method for each type of skill or competency. Table 13 displays the response to this question.

The most popular method was 'In-house workshops' with a range of from 72-77%). The second preference was 'Class-room Lectures' with a 60 -64% positive response range. Audio presentations would not be very well received. Some methods suggested were interactive-group sessions and through magazines and newsletters.

Table 13. CMA Educators' Responses to Method of Delivery

Method of delivery	*%Response to update needs*	*% Response to Competency needs*	*% response to Performance enhancing needs*
In-house workshops	72	72	77
Class lectures	61	64	60
Workbooks	42	44	34
Dinner lectures	44	28	48
Interactive software	42	42	27
Video presentation	25	33	37
other	14	14	6
Audio presentation	3	3	6

Funding of Professional development

The first open-ended question asked how should professional development be funded. This answers the research sub-question number four. There were several views in this area. Sixteen respondents reported that professional development should be a shared responsibility. They preferred employee and employer to share the cost. Ten of the 36 respondents replied that professional development should be "user pay." Seven expected the employer should finance all professional development activities. Seven wanted the Society of Management Accountants to share the cost with members. Two respondents thought that the employers should pay 80% of the cost. One person wanted the Society of Management accountants to pay for all changes in core areas.

Additional Topics for Professional Development

When asked what they would like included in professional development, there were a variety of answers. This information was requested to ensure that all possible topics desired by participants would be addressed. It allowed participants to add topics they needed and partially answered research sub-question one. Some persons emphasized those areas already included in quadrant 1 of the Quadrant Assessment Model in an earlier section. The more common topics cited were the Internet, team skills, leadership skills, personal development and decision making. The topics

requested are listed below in no special order. Update topics were divided because of changes in new business trends, computer innovations and changes which were education related. Topics associated with the CMA body of knowledge were also noted separately. Those topics based on personal enrichment and likely to improve performance were placed in a separate category.

UPDATE NEEDS

1. Need because of Change

    New trends in business

    Changing needs of employer

    Leading edge

    Learning organizations

    Current management accounting

    Dealing with change

2. Computer topics

    The Internet (This was the most popular topic)

    Informational technology software

    Business applications

    Technology changes

3. Education topics

    Interactive instructional methods

Adult education issues

Educational technology

Discipline in the classroom

COMPETENCIES

Core CMA subjects

Activity-based costing

Comprehensive discussion on management guidelines

Core accounting topics

PERFORMANCE ENHANCING SKILLS

Quality of life issues

Lifestyle courses

Leading a balanced life

Personal organization

Personal development

Self awareness

Dealing with people

Goal achievement

Dealing with professionals

Limit to Participation in Professional Development

Respondents were asked "what factors may limit your participation in professional development?" This question was asked so that planners of in-service would know what constraints, if any, influenced participation in professional development. This question was intended to answer "How can participation in professional development courses be improved?" Most respondents (75%) cited time as the main limitation. Some referred to family commitments as a deterrent. Fourteen out of thirty- six replied that cost was a factor. Only four reported that location and travel were major factors.

Scheduling of Professional Development

To facilitate planners and increase participation, CMA post-secondary educators were asked to choose times suitable to them for attending professional development courses For each type of professional development, respondents preferred to have courses delivered in summer. The second choice was winter and fall equally. The most preferred time of week was weekdays. Evenings were the second choice. Several participants did not want courses scheduled to interfere with their personal commitments and family life.

Summary of Findings

The findings of the research were presented in this section. The findings will be discussed further in the next chapter. The main discovery was that all post-secondary educators generally agreed on the level of difficulty in obtaining professional development courses. Full-time instructors were particularly interested in instruction related topics. There were some differences expressed on importance of topics. These differences were observed according to age, responsibility, and number of years in the profession. There was very little difference in ratings between male and female participants.

In the next chapter there will be a discussion of the findings and a summary of the study.

Chapter V

Discussion of Results

Introduction

This study was carried out to determine the professional development needs of CMA post-secondary educators and to consider how these needs may be met. To accomplish this several sub-questions were asked. These were answered in Chapter 4. In this final chapter a summary of the research will be presented and discussed. Some recommendations for planners of in-service will be given. The chapter will conclude with suggestions for further research.

In the management accounting profession, there are several areas of specialization. It follows logically that CMA post-secondary educators would have different needs for update and competencies in their particular area of specialization. This is why the result of the study showed although there were differences in the degree of importance on some subjects, there were no significant differences in the degree of difficulty in accessing courses for professional development. These differences will be discussed in this chapter.

Summary of the Study

In chapter one the research question was formed and its significance to the study was given. It was noted there that the findings would depend on how carefully the respondents answered the questions.

The Research Question

The purpose of the study was to identify the perceived professional development needs of CMA post-secondary educators. The needs were divided into three types: update, competency, and performance enhancing needs. To better serve educators it was necessary to find out their preferred method of delivery as this would improve participation in professional development.

The Population

For convenience the population of CMA post-secondary educators in the Edmonton area was selected to fill out and return a survey questionnaire which requested answers to the research questions. The population consisted of all CMAs who taught potential CMA students at post-secondary institutions and in the CMA professional program.

Methodologly

Questionnaires were developed, piloted, and revised. They were either mailed

or hand delivered to possible participants. Replies were confidential and anonymous. The responses were aggregated using the SPSS software package. Needs were analysed and fitted into the Quadrant Assessment Model. Descriptive statistics were also used in the analysis of the results. Those topics that were most important and difficult to access represent the gap or deficiency to be addressed by planners of professional development. These were presented in quadrant one of the Quadrant Assessment Model.

The Findings and Identification of Needs

1. Generally there was consensus among CMA post-secondary educators on the level of difficulty in obtaining professional development courses. There was very little variation from the mean on every topic. The variability was between 0.98 and 1.51 on the normal curve. This shows consistent responses among participants. Specific needs were identified for professional development
2. The more important needs were related to updates in the areas of instructional methods and technological changes. From the top 25% selected as important, eight of the ten update topics were included as important with very little variability. This observation confirms that instructors as with other professionals want to be the best they can be in

their chosen discipline (Heimlich & Norland 1994). They will take the initiative to keep up to date and want easy access to those courses that will contribute to their improvement. They are self-motivated to learn (Knowles 1990). CMA educators seemed to be more interested in their primary responsibility of instruction than in core CMA subjects.

3. When topics were rated by level of difficulty in accessing courses, competency topics took precedence. The first four were 'corporate culture,' 'business ethics', 'industry knowledge' and 'change leadership'. Interestingly 'business ethics' was one of the topics requested in the 1995 CMA Survey. Support for passing on ethical behaviour is acknowledged by Taylor (1993) and she encouraged it, noting "Planning future business education leaders require early identification, mentoring and training of individuals with high education, ethical and moral standards" (p. 37). The topics which were identified as difficult are all related to change and their importance is paramount to any profession if it will survive in these times of sweeping changes. It is not surprising that 'corporate culture' and 'industry knowledge' are as high on the list because organizational environments are becoming more complex in a changing world with a global economy. This phenomenon may affect ethical behaviour as Brody and Wallace commented "These realities and a host of others intrude on

the ability of professionals to follow their own best judgements" (p. 219). These topics rated as difficult to obtain were not directly related to instruction but could be classified as being further away from the educational environment. It would appear that some industry experience is lacking. Instructors may have to go into industry to keep up to date in those areas.

4. From quadrant one on the Quadrant Assessment Model, the first four topics identified on importance and difficulty were 'instructional methods,' 'ethics for instructors', communications technology,' and adult educator skills. Again these topics are distinctly job related and instructors appear to want expertise in these areas to do better on their jobs. This is not surprising because the study on "Continuing Professional Education in Canada (1992) found that respondents wanted "consideration to humanistic, ethical and environmental concerns"(p. 17). Speaking of professionals, Brody and Wallace emphasized that, "Practitioners report that their professional education programs do not prepare them to deal with the profound moral conflicts and developmental challenges of their working lives". He further emphasized "they experience tensions between personal and professional values, organizational mores and individual commitments, and bureaucratic expectations and their own standards, and

they feel ill-prepared to work productively amidst these dilemmas" (p. 2).

5. There was little difference between the responses provided by men and women. The differences noted though, should not be taken lightly. Women rated the importance of 'Communications technology' higher than men (mean of 4.0 compared to 3.2 for men). Men found courses on 'Enrichment for couples' more difficult to access than women (3.25 compared to 1.93 for women.) Could this mean that more women are willing and ready to move quickly into the technical areas? Are men becoming more interested in nurturing relationships? Some topics were rated more important by persons who entered into the profession after 1985. 'business legislation, ''productivity improvement', business valuation', 'industry knowledge,' corporate culture', 'performance management', and 'management change leadership' were rated lower in importance by people who entered the profession 1985 or earlier. 'How to handle Mid-life crisis' was the only topic that was less important to persons who entered the profession in 1986 or later. It appears that this preference could be because of possible age differences and stage of life. The younger instructors may want to, or have to remain longer in the work-force. They therefore need to be competitive and have the educational edge. The older instructors may be maintaining competence

but planning for retirement since they may either want to retire early or are indeed closer to retirement.

6. Among full-time and part-time instructors significant differences were noted between the importance of 'computer-assisted instruction techniques' (mean of 4.0 for full-time and 2.76 for part-time). Other differences were noted on Table 12. Part-time instructors may have other areas of specialization and could want to develop and advance in those areas as their first choice. This is consistent with the concept that adults will be motivated to learn according to their needs and preferences.
7. There was a definite need for in-service. This is important because a variety of courses were listed as preferred topics to be included for in-service. Those specifically requested could be classified under the headings of 'update needs', 'competency needs', and 'performance enhancing needs' (Nowlen's Models1988). The number of topics showed clearly that instructors are willing to adapt to keep up with the changes. Again the result showed that planners must be concerned with these identified preferences and try to accommodate the educators.
8. On scheduling of professional development, most respondents preferred to do in-service in the summer and not to have this interfere with other areas of their lives. Planners must take this information seriously to ensure full

participation in in-service.

9. The result seems to indicate that there is some level of satisfaction with the professional development courses offered because the mean level of difficulty was 2.59 on the scale of 0 - 5. Although this is not very high on the scale, it may be only satisfactory. The list of courses requested implies that more courses are needed to fill the discrepancy between what is requested and what courses are offered.

Limitations of the Study

A needs assessment is not the only method of identifying professional development needs but is a direct method .Participants were allowed to complete the questionnaire at their leisure. This should have given some creditability to the results of the study because enough time was given for reflection on the questions.

It is not known whether the results would have been different if the study included other methods of data collection such as individuals' comments and opinions in business publications or monitoring what courses solicited high registration. Planners could also access needs through requests for courses different from those already offered.

From the rate of response, evidently professionals want to be involved in planning their own professional development. They were willing to tell just what they

thought was important to them and how their needs may be met. They would fund their own professional development. Human development was not as important as job related topics but they emerged as an important part of professional development. From the additional topics requested it can be seen that all types of courses are important. The drawback to participation seemed to be the timing of professional development courses.

Recommendations

Planners of professional development for CMA post-secondary educators must be aware of the preferences identified by instructors. Prescription of professional development is not necessary since this group of adults appear to be self-directed to learn. They seem to be at the point of self-actualization and are psychologically competent to make decisions regarding their professional and other needs.

1 Their main concern appeared to be in the area of instructional methods and adapting to technological changes in these areas. These were followed by core CMA topics and performance enhancing skills. Planners must take care to plan for all the types of needs.

2 Planners should be careful to accommodate instructors so that they will be able to participate in continuing education. The best time to schedule professional development courses according to preferences by CMA post-secondary educators

was in the summer. They did not want courses scheduled to take away from family time and other commitments. There is life apart from work and the results show that family time is precious to these professionals.

3 Most CMA post-secondary educators agreed to pay for some of the professional development costs. This could imply that professional development is important to them and they will make the financial sacrifice to obtain it. Planners should be encouraged to accommodate instructors because of their interest and willingness to participate.

4 The participants listed topics they wanted included in professional development. All three types of skills and competencies were recognized. This indicates that all types are important for in-service. However, updating by itself is not sufficient, because it does not explain why "fully updated and highly skilled professionals' performance flag during periods of family strife, financial crisis, or ethical dilemma" (Nowlen 1994 p. 94).

5 Knowing the learning style is important for planners. Participation in courses could be improved if they are offered in the manner preferred. In-house workshops would increase participation since this was by far the most preferred method of delivery.

6 Bush and Taylor (1993) recommend "Professional development of business education teacher leaders required rigorous teacher education that includes a

common body of knowledge associated with teaching" (p. 38) . This study reveals that CMA post-secondary educators are willing to improve in the area of instruction and to keep up to date. However, most of the respondents (75%) surveyed were between the ages of 31 - 45. Perhaps they may not be rewarded financially for improvement if they are already at maximum salaries. Incentives to improve could be therefore non-financial. Some may receive self-gratification for continuing education in this area. Pursuing formal academic recognition could be one source of gratification.

Transferability

Needs by group are very important. CMAs involved in other areas of specialization would probably have selected different courses for professional development. It should follow that educators in other professions would prefer to be competent instructors as well as to be up to date as part of their professional responsibility. This is definitely a case for non-mandatory professional development.

In other professions, there are likely needs for professional development that are not met. A needs assessment using a questionnaire could increase the probability that respondents will give reliable answers that could be used for planning. In other professions too, there are different areas of specialization that must be addressed by practitioners in their fields. Each area of specialization needs attention.

Educators in other professions may be concerned with improving in the area of instructional methods and want to keep up to date on educational topics. They too are dual-professionals and have similar responsibility to be competent in core subjects related to their profession.

Life skills are universally needed and in an educational environment these needs could be addressed globally. The core subject needs for each of professional, though, should be addressed separately.

Suggestions for further Research

Nowlen (1988) spoke of a competence framework and self assessment. This would imply that some work could be done in this area. The development and testing of a self-assessment instrument could help in further identification of professional needs and could help planners of professional development. Some guidelines will need to be developed to help identify strengths and weaknesses in core areas of specialization.

Planning for professional development could be broken down by groups. It was seen that when there is specialization the needs of special interest groups within a profession could be quite different. Some studies could be done to verify the validity of this assumption.

Another area that could be studied is the impact that the change in life stages

has on the evolution of the practitioner and the needs that result because of different life stages. Performance is related to competence but life experiences have an effect of performance. Employers could benefit from professional development if they address problems through professional development before they become too serious.

Conclusions

The result confirms that "adult educators want to be the best they can be and are willing to work to improve" (Heimlich and Norland 1994 p. 4). Instructors want to keep up to date in the area of instruction. Since this is the main function of their job, it is very important to them to be up to date in their area of specialization.

One can conclude from this that CMA educators need not be forced to continue education but will seek the courses that are important to them and take the initiative to improve on their own. Hence part-time instructors were not as keen on areas of instruction as full-time instructors. If part-time instructors have worked or want to work in a different area of specialization, then they would want to update in that area of specialization. This is definitely a case for the democratic philosophy of continuing education as expressed by Knowles (1990) who said that adults would seek what they need. Nowlen spoke of "guided self-assessment" in his performance model. This could be an alternate method to mandatory professional development. Some persons may need counselling to help them identify strengths and weaknesses

but this may not be the majority.

CMA educators are dual-professionals and have the responsibility to pursue perfection in both their professions. This generalization may be made of educators of other professions. Engineers, for example, must be experienced and be up to date on their core subject areas as well as in adult education methods to do a good job of facilitating adult learning.

Another observation which may refute a case for mandatory professional development is the differences in ratings on the levels of importance of possible professional development topics. These differences depended on age, area of specialization or responsibility, and time in the profession. Topics will be taken by persons motivated to learn because of need. This study confirms Knowles (1990), Nowlen (1988), and Heimlich and Norland (1994), that professionals know what their needs are and want to be the best they can be in their chosen area of specialization within their profession.

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Appendices

A. Covering Letter for Pilot Study

The University of Alberta,
Department of Educational Policy Studies,
Faculty of Education,
7-167D, Educational Building
EDMONTON, T6G 2G5

February 12, 1996

Dear Colleague,

While on leave from NAIT, I am pursuing a master's degree in Adult and Higher education at the University of Alberta. I am concentrating on the area of professional development and working on a questionnaire for a needs assessment.

I want to pilot this instrument before administering it to the intended population of CMAs who are educators. In so doing, I am asking if you would fill out the questionnaire attached and let me know how long it took you to complete it. If you find any of the questions ambiguous, please identify them and make some suggestions for improvement.

Thank you very much for agreeing take part in this pilot study.

Yours sincerely,

Claudia Parker, CMA

B. Covering Letter for Questionnaire

University of Alberta,
Department of Educational Policy Studies,
Faculty of Education,
7-167D Education Building.
Edmonton T6G 2G5.
Fax (403)492-2024

February 28, 1996.

Dear Colleague,

SURVEY OF THE NEEDS OF CMAs IN EDUCATION

While on leave from NAIT, I am at the University of Alberta pursuing a Master's degree in Adult and Higher Education. My research focuses on professional development for CMAs who teach at post-secondary institutions. My study is also intended to determine the method of delivery preferred.

Your ideas are important for those who plan and deliver professional development for our field. I invite you to take a few minutes to complete the questionnaire enclosed. Your identity and the identity of your post-secondary institution will be kept confidentially. All responses will be aggregated to ensure anonymity.

Please reply by March 25, 1996 using the stamped self-addressed envelope enclosed.

Thank you very much for participating.

Yours sincerely,

C. Parker, B. Com., CMA.

cp enclosures

C. The Questionnaire

PROFESSIONAL DEVELOPMENT NEEDS OF

CERTIFIED MANAGEMENT ACCOUNTANTS IN EDUCATION

A SURVEY

The survey is divided into five parts.

Part A asks for demographic information so that correlation may be made to the other data.

Part B is intended to find out about update needs.

Part C asks about competencies.

Part D request performance enhancing needs.

Part E asks open ended questions and schedule preferences.

Instructions

Please complete the entire questionnaire.

Do not write your name on the questionnaire. Anonymity is required.

Please return this instrument using the stamped self-addressed envelope enclosed. If you do not wish to participate in this survey, please return the questionnaire in the stamped self-addressed envelope immediately.

THANK YOU IN ADVANCE FOR COMPLETING THIS SURVEY

SECTION A. Demographic Information

In order for this survey to be meaningful, it is important to collect some demographic information.

i Age (Circle 1)

1. under 31 years 2. 31 - 45 3. over 45

ii What year did you receive your designation? _____

iii Which category best characterizes your responsibilities?

(Circle one)

1. Instructor (full-time) 2. Administrator
3. Instructor(part-time) 4. Other(please specify)_____

iv Gender (Circle one)

1. Male 2. Female

v Number of years as a CMA educator (circle one)

1. under 6 2. 6 - 10
3. 11-15 4. over 15

vi Highest level of academic education (circle one)

1. Bachelor's degree 2. Masters degree
3. Doctorate degree 4. Other(specify)_____

vii Professional Development experience (circle the numbers which indicate your experiences)

1. At your educational institution
2. Through SMA
3. Related to teaching
4. Related to CMA

5. Other (please specify)_____

SECTION B. Update needs

I. This section asks for information about updating your knowledge because of changes in the environment.

For each of the following questions please provide responses first to indicate how important it is to you to update knowledge, attitudes and skills in these areas and second your perception as to availability of such information

	Degree of importance to you to update in these areas	Degree of Difficulty in obtaining knowledge in these areas
CMA related	Low-->High	Low->High
1. Income tax updates	0 1 2 3 4 5	0 1 2 3 4 5
2. CICA pronouncements	0 1 2 3 4 5	0 1 2 3 4 5
3. Changes to Business Legislation	0 1 2 3 4 5	0 1 2 3 4 5
4. Changes to CMA standards	0 1 2 3 4 5	0 1 2 3 4 5
5. Technological changes (new programs and equipment)	0 1 2 3 4 5	0 1 2 3 4 5
Instruction related		
6. Instructional methods	0 1 2 3 4 5	0 1 2 3 4 5
7. Adult educator skills	0 1 2 3 4 5	0 1 2 3 4 5
8. Computer-assisted instruction techniques	0 1 2 3 4 5	0 1 2 3 4 5
9. Communications technology	0 1 2 3 4 5	0 1 2 3 4 5
10 Ethics for instructors	0 1 2 3 4 5	0 1 2 3 4 5
11 Other _____	0 1 2 3 4 5	0 1 2 3 4 5

II Method of delivery in the above areas:

Please circle your three (3) most preferred methods of acquiring knowledge and skills from the following list.

1. Classroom lectures
2. Interactive software
3. Video presentation
4. Audio presentation

5. In-house workshops 6. Dinner lectures

7. Workbooks (self-paced) 8. Other(specify)_____

SECTION C. Refresher courses for preparing for new assignments or to maintain competencies.

I. The following competencies were identified by employers as important (1995 CMA Survey).

For each of the following questions, please provide responses first to indicate how important it is to you to have courses in these areas, and second, your perception as to availability of such courses.

Competencies	Degree of importance to you for refresher courses in these areas Low-->High	Degree of difficulty in obtaining refresher courses in these areas Low-->High
1. Activity Based Management	0 1 2 3 4 5	0 1 2 3 4 5
2. Strategic Cost Management	0 1 2 3 4 5	0 1 2 3 4 5
3. Productivity Improvements	0 1 2 3 4 5	0 1 2 3 4 5
4. Business Evaluation	0 1 2 3 4 5	0 1 2 3 4 5
5. Strategic Systems Planning	0 1 2 3 4 5	0 1 2 3 4 5
6. Budgeting	0 1 2 3 4 5	0 1 2 3 4 5
7. Financial Management	0 1 2 3 4 5	0 1 2 3 4 5
8. Financial Statement Presentation	0 1 2 3 4 5	0 1 2 3 4 5
9 Taxation	0 1 2 3 4 5	0 1 2 3 4 5
10. EDP - Needs Appraisal and Installation	0 1 2 3 4 5	0 1 2 3 4 5
11. Financial Planning - Personal and Business	0 1 2 3 4 5	0 1 2 3 4 5
12. International Business Issues	0 1 2 3 4 5	0 1 2 3 4 5
13. Technological Change	0 1 2 3 4 5	0 1 2 3 4 5
14. Quality Management	0 1 2 3 4 5	0 1 2 3 4 5
15. Organizational trends	0 1 2 3 4 5	0 1 2 3 4 5

Competencies	Degree of importance to you for refresher courses in these areas Low-->High	Degree of difficulty in obtaining refresher courses in these areas Low-->High
16. Industry Knowledge	0 1 2 3 4 5	0 1 2 3 4 5
17. Corporate Culture	0 1 2 3 4 5	0 1 2 3 4 5
18 Individual Ethics	0 1 2 3 4 5	0 1 2 3 4 5
19 Business Ethics	0 1 2 3 4 5	0 1 2 3 4 5
20. Decision Making	0 1 2 3 4 5	0 1 2 3 4 5
21. Interpersonal Communication	0 1 2 3 4 5	0 1 2 3 4 5
22. Performance Management	0 1 2 3 4 5	0 1 2 3 4 5
23. Managing Change Leadership	0 1 2 3 4 5	0 1 2 3 4 5
24. Team Skills	0 1 2 3 4 5	0 1 2 3 4 5
25. Goal Setting	0 1 2 3 4 5	0 1 2 3 4 5
26. Management Control Systems	0 1 2 3 4 5	0 1 2 3 4 5
27. Other _____ _____	0 1 2 3 4 5	0 1 2 3 4 5
28. Other_____	0 1 2 3 4 5	0 1 2 3 4 5

II Method of delivery of courses in these areas:

Please circle your three (3) most preferred methods from the following list.

1. Classroom lectures 2. Interactive software
3. Video presentation 4. Audio presentation
5. In-house workshops 6. Dinner lectures
7. Workbooks (self-paced) 8. Other(specify)_____

SECTION D Performance Enhancing Skills

CMAs and other people have needs other than professional competencies to give them a better quality of life. It is important to know what skills are needed in this area so that the professional can perform better on the job.

For each of the following questions please provide responses first to indicate how important it is to you to have courses in these areas and second, your perception as to availability of such courses.

	Degree of need for performance enhancing courses Low--->High	Degree of difficulty in obtaining courses in these areas Low---->High
1. Stress management	0 1 2 3 4 5	0 1 2 3 4 5
2. Preparing for retirement	0 1 2 3 4 5	0 1 2 3 4 5
3. How to handle mid-life crisis	0 1 2 3 4 5	0 1 2 3 4 5
4. Taking care of ageing parents	0 1 2 3 4 5	0 1 2 3 4 5
5. Talking to teenagers	0 1 2 3 4 5	0 1 2 3 4 5
6. Enrichment for couples	0 1 2 3 4 5	0 1 2 3 4 5
7. Life-style improvement	0 1 2 3 4 5	0 1 2 3 4 5
8. Leisure activities	0 1 2 3 4 5	0 1 2 3 4 5
9. How to do a workshop or seminar	0 1 2 3 4 5	0 1 2 3 4 5
10. Other(specify)_____	0 1 2 3 4 5	0 1 2 3 4 5

II Method of delivery of courses in this area:

Please circle your three (3) most preferred methods from the following list.

1. Classroom lectures
2. Interactive software
3. Video presentation
4. Audio presentation
5. In-house workshops
6. Dinner lectures
7. Workbooks (self-paced)
8. Other_____

PART E

OPEN ENDED QUESTIONS

1. How would you like professional development courses funded?

_____

_____

2. What topic would you like included in professional development?

_____

_____

3. What factors may limit your participation in professional development?

_____

_____

SCHEDULING (circle the letter that applies)

4. What time of year would you prefer to have professional development scheduled?

a. spring
b. summer
c. f all
d. winter
e. other (specify)_____

5. When would you prefer to attend professional development?

a. weekdays
b. weekends
c. evenings
d. other(specify)_____

NOTE: Please give additional comments at the back of this page.

D. Reminder Letter for Survey Questionnaire

University of Alberta,
Department of Educational Policy Studies,
Faculty of Education,
7-167D Education Building.
Edmonton T6G 2G5.

March 26, 1996.

Dear Colleague,

Thank you for taking the time to fill out the questionnaire "Professional Development Needs of Certified Management Accountants in Education."

If for some reason you have not yet mailed the questionnaire, I would still appreciate your participation as every response is important.

Yours truly,

Claudia J. Parker

cp

E. Preferences for Topics by Gender

Topic	*Importance Male means*	*Importance Female means*	*Accessibility Male means*	*Accessibility Female means*
Income tax updates	2.55	2.60	1.60	2.07
CICA pronouncements	2.95	2.87	1.71	1.64
Changes to business legislation	2.71	2.80	2.57	2.79
Changes to CMA standards	3.38	4.00	1.81	1.87
Technological changes	3.81	4.07	2.81	2.27
Instructional Methods	3.71	3.86	2.95	2.87
Adult educator skills	3.43	3.73	2.81	2.53
Computer assisted instruction techniques	3.14	3.73	2.76	2.67
Communications technology	3.29	4.00	3.05	2.60
Ethics for instructors	3.43	4.00	3.05	2.47
Activity based management	3.23	2.40	2.71	2.50
Strategic cost management	3.00	2.33	2.67	2.43
Productivity improvements	3.14	2.80	2.86	2.36
Business evaluation	3.19	3.13	2.90	2.64
Strategic systems planning	3.14	2.80	2.76	2.71
Budgeting	3.38	2.87	2.52	2.07
Financial management	3.52	3.07	2.66	2.21
Financial statement presentation	2.90	2.87	2.47	1.71
Taxation	2.95	3.00	2.24	1.80

Topic	Importance Male means	Importance Female means	Accessibility Male means	Accessibility Female means
Taxation	2.95	3.00	2.24	1.80
EDP needs appraisal and installation	2.52	2.67	2.67	2.57
Financial planning-personal and business	4.14	3.13	2.62	2.14
International business issues	2.81	2.93	2.76	3.21
Technological change	3.24	3.47	2.95	2.71
Quality management	3.33	3.13	2.71	2.29
Organizational trends	3.14	3.20	2.52	2.71
Industry knowledge	3.19	2.87	2.90	3.07
Corporate culture	3.05	3.13	3.00	3.57
Individual ethics	3.33	2.87	2.76	2.64
Business ethics	3.38	3.40	2.85	3.35
Decision Making	3.48	3.64	2.90	2.79
Interpersonal communications	3.57	3.80	2.29	2.50
Managing change leadership	3.47	3.20	3.05	2.78
Team skills	3.52	3.53	2.67	2.50
Performance management	3.33	3.13	2.90	2.71
Goal setting	3.55	3.13	2.71	2.64
Stress management	3.05	3.46	2.45	2.06
Preparing for retirement	2.29	2.73	2.35	1.53

Topic	Importance Male Means	Importance Female Means	Accessibility Male Means	Accessibility Female Means
Hoe to handle mid-life crisis	2.45	2.33	2.84	2.33
Taking care of ageing parents	2.76	2.47	2.95	2.60
Talking to teenagers	2.43	2.67	3.00	2.06
Enrichment for couples	2.95	2.13	3.25	1.93
Leisure activities	2.61	2.40	2.45	1.47
How to do a work-shop	2.62	3.67	3.00	2.52